

This application claims the benefit of U.S. Provisional Application No. 60/270,649 filed February 26, 2001, which is incorporated herein by reference.

IN THE CLAIMS:

Please cancel Claims 1-3, 6, and 9 without prejudice.

1 4. (Amended) Fiberoptic sensing apparatus,

2 comprising:

3 a fiberoptic coupler in which a plurality of optical
4 fibers are joined through a fused coupling region, said
5 optical fibers including at least one input optical fiber
6 and a plurality of output optical fibers, said fiberoptic
7 coupler distributing light incident to said input optical
8 fiber among said plurality of output optical fibers;

9 a support member;

10 said coupler being mounted to said support member and
11 configured such that at least a portion of said coupling
12 region can be deflected to change the light distribution
13 among said output fibers with said coupling region being
14 under substantially no tension;

15 a fluid column cooperative with a deflection member
16 disposed to deflect said portion of said coupling region;

17 a transducer coupled to said fluid column, said
18 transducer converting pressure fluctuations from an
19 external source into pressure changes in said fluid column,
20 causing said deflection member to deflect said portion of
21 said coupling regions, said transducer being disposed at a
22 first end of said fluid column, and said deflection member
23 being disposed at a second end of said fluid column; and
24 a pressurizing device which sets an initial fluid
25 pressure of said fluid column.

1 7. (Amended) The apparatus of Claim 4, wherein said
2 fluid column is a gaseous column.

1 8. (Amended) The apparatus of Claim 4, wherein at
2 least part of said fluid column is contained in a hose.

1 10. (Amended) The apparatus of Claim 4, further
2 comprising:

3 a device optically coupled to said output optical
4 fibers to detect the change of light distribution.

1 12. (Amended) An apparatus for monitoring acoustic
2 activity or motion of an object, comprising:

3 a support member having a surface configured to
4 support the object;

5 a transducer associated with said support member and
6 capable of transmitting pressure fluctuations due to
7 acoustic activity or motion of the supported object;

8 a fiberoptic sensor having a fused-fiber coupling
9 region supported such that at least a portion of said
10 coupling region can be deflected to change an output of
11 said sensor with said coupling region being under
12 substantially no tension; and

13 a fluid column coupled to said transducer and
14 cooperative with a deflection member to transmit pressure
15 fluctuations from said transducer to said deflection
16 member, said deflection member deflecting said portion of
17 said coupling region.

1 22. (Amended) The apparatus of Claim 21, further
2 comprising a display connected to an output of said device.

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Please add the following new claims:

1 23. (New) The apparatus of Claim 4, wherein said
2 portion of said coupling region is substantially U-shaped.

1 24. (New) The apparatus of Claim 23, wherein said U-
2 shaped portion lies substantially in a plane and is
3 disposed to be deflected along a direction perpendicular to
4 said plane.

1 25. (New) The apparatus of Claim 12, wherein said
2 portion of said coupling region is substantially U-shaped.

1 26. (New) The apparatus of Claim 25, wherein said U-
2 shaped portion lies substantially in a plane and is
3 disposed to be deflected along a direction perpendicular to
4 said plane.

REMARKS

Claims 1-3, 6, and 9 have been cancelled in order to
be presented in companion Application No. 10/247,738. The
remaining claims have been amended accordingly, and new
Claims 23-26 have been added. As a result, Claims 4-5, 7-
8, and 10-26 are pending.